

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Baron Machine Co Inc

#### New Hampshire Manufacturing Extension Partnership

#### Baron Machine Company, Inc., Has Found Success with 5S

##### Client Profile:

Baron Machine Company, Inc., has been in business for over 50 years. The family-owned and operated business provides machining solutions for customers worldwide by offering CNC milling, turning, metal fabrication, welding, as well as production machining for aerospace. Baron Machine employs 75 people at its facility in Laconia, New Hampshire.

##### Situation:

Baron Machine wanted to address a problem with their Cutoff Room where material (primarily metal) is received, stored and prepared. There was an over abundance of inventory stored in the area, making it difficult and time consuming to find other materials. Baron Machine had worked with the New Hampshire Manufacturing Extension Partnership (NH MEP), a NIST MEP network affiliate, in the past, so when they began their conversion to Lean principles, they again asked NH MEP for their assistance.

##### Solution:

NH MEP formed a cross functional team of 12 employees for a Kaizen event. The team brainstormed about the inadequate inventory system in the Cut Off Room and then developed a spaghetti diagram to show the way people and material traveled in and through the space. They created a current state map that helped pinpoint the trouble areas. From this exercise, they discovered that it took an average of 15 minutes to locate materials in the Cut Off Room and that the employee was traveling about 1,394 linear feet per day (or 279 feet per transaction) while receiving materials.

With assistance from NH MEP, the team determined what the 'ideal state' of the room should be and established the following goals: 1) develop an inventory control system and more visual controls to assist with picking materials; 2) establish designated areas for scrap material to make better use of floor space; and 3) reduce raw material inventory by 30 percent to be able to verify and locate inventory in a short amount of time. The team took part in a 5S event of sorting, shining, setting in order and standardizing the materials, machinery and equipment. The space was cleaned, painted and re-configured. Designated areas were properly identified and labeled. Identification and control systems were put in place, and materials were then restocked according to the new system and layout. After the Kaizen event, Baron Machine was able to reclaim 850 square feet of floor space, remove and reclaim 44 tons of obsolete and unusable materials, and establish a procedure to sell unusable material to a recycling center. The company also set an inventory protocol in place which will help them track valuation, location and inventory levels. The new layout in the area and the removal of the excess material also resulted in reduced travel distance for those in the receiving area.

##### Results:

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- \* Increased floor space by 30 percent.
- \* Removed 44 tons of unusable material.
- \* Reduced travel distance from 1,394 linear feet to 168 linear feet.

#### **Testimonial:**

"The 5S events have been extremely productive. We have done a few (Kaizens) on our own already and plan to do three or four more this year!"

Richard Combs, Manufacturing Manager